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EXAMINER

LEE, PHILIP C

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

1. This action is responsive to the amendment and remarks filed on August 26, 2008.
2. Claims 1-14, 16-36, 39-40, 65-79 and 81-89 are presented for examination.
3. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.

Objection

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: “A computer readable medium”. For examination purpose, “A computer readable medium” is interpreted as “storage medium” according to page 44 of specification.
5. Claim 28 is objected to because of the following informalities: lines 2-4, “wherein wherein”

Claim Rejections – 35 USC 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-14, 16-36, 39-40, 65-79 and 81-89 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains

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subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not disclose “said scheduler *determining said broadcast times and schedule* based upon said instructions from the content provider *without any user request for said data content*”.

Claim Rejections – 35 USC 103

6. Claims 1, 8, 13-14, 16, 18, 21-23, 25, 66, 73, 78-79, 81, 83, 86-87, and 89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi et al, U.S. Patent Application Publication 2006/0073810 (hereinafter Pyhalammi) in view of Corts et al, U.S. Patent Application Publication 2002/0095228 (hereinafter Corts).

7. Pyhalammi and Corts were cited in the last office action.

8. As per claim 1, Pyhalammi taught the invention substantially as claimed comprising:
A processing system (inherently comprised in MCD 11, fig. 3); and
A memory coupled to the processing system (inherently comprised in MCD 11, fig. 3);
Said processing system comprising:
a network inbound queue (36, fig. 3) for the reception of instructions related to data content (page 3, paragraph 23);

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a scheduler for processing said instructions from the content provider to determine broadcast times and schedule for said data content (page 3, paragraphs 24 and 25) (delivery class information) to be received by a receiver of a user (page 3, paragraph 25), said scheduler determining said broadcast times and schedule based upon said instruction from the content provider without any user request for said data content (page 3, paragraphs 26 and 27);

an addressing module for processing said instructions from the content provider for extracting addressing information (page 3, paragraphs 26 and 27); and

an outbound queue (36, fig. 3; 54, 55 of fig. 5) for storing said encoded data content (pages 3-4, paragraph 27).

9. Pyhalammi did not teach an encoder for encoding data and a receiver is a digital radio broadcast receiver. Corts taught a digital radio broadcast receiver ([0021]) and a encoder for encoding said data content for digital radio broadcast transmission ([0197], [0275], [0285]).

10. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi and Corts because Corts's teaching of encoder for encoding data would allow Pyhalammi's system to utilize In-Band On-Channel (IBOC) technology to broadcast digitized data along with the digital audio to wireless devices.

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11. As per claim 66, Pyhalammi and Corts taught the invention substantially as claimed in claim 1 above. Pyhalammi further taught a content provider center (13, fig. 2) configured to communicate with said gateway (11, fig. 3).

12. As per claims 8 and 73, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi further taught a bandwidth module for bandwidth management, said bandwidth module maintaining queues and prioritizing flows per quality of service (QoS) traffic attributes while managing resources (page 3, paragraph 26).

13. As per claims 13-14 and 78-79, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi further taught a unique identifier, said identifier used in targeting said transmitted data content to a specific user agent (page 3, paragraph 26), and said identifier is an URI or a numeric value (page 3, paragraph 26).

14. As per claims 16 and 81, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi and Corts did not explicitly teach Turbo Broadcast Layer (TBL) encoder. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include a TBL encoder or any type of encoder because by doing so it would increase the flexibility of their system by allowing data to be converted to different formats using different type of encoder.

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15. As per claims 18, 25, 83, and 89, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Corts further taught data content is in any of the following formats: binary, plain text, HTML, XML, WML (fig. 1, i.e., binary signal broadcast across airwave), and wherein said encoded data content is in a digital broadcasting format suitable for reception via a digital consumer radio receiver (fig. 1, [0021]).

16. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi and Corts for the same reason as claim 1 above.

17. As per claims 21 and 86, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi further taught instructions include any of the following: time at which transmission is to commence, time at which transmission is to cease, or rate at which data content to be transmitted needs to be repeated (page 2, paragraph 18).

18. As per claim 22, Pyhalammi and Corts taught the invention substantially as claimed in claim 1 above. Corts further taught said gateway receives data content over a network (fig. 3; page 3, paragraph 23).

19. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi and Corts for the same reason set forth in claim 1 above.

20. As per claims 23 and 87, Pyhalammi and Corts taught the invention substantially as claimed in claims 22 and 66 above. Pyhalammi further taught said network comprises any of the following: local area network, wide area network, wireless network, or Internet (abstract).

21. Claims 5, 20, 26, 39, 65 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Garrity et al, U.S. Patent 6,745,237 (hereinafter Garrity).

22. Garrity was cited in the last office action.

23. As per claim 5, Pyhalammi and Corts taught the invention substantially as claimed as in claim 1 above. Pyhalammi and Corts did not teach an authenticator. Garrity taught an authenticator for authenticating a sender of said instructions (col. 4, lines 46-49).

24. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Garrity because Garrity's teaching would increase the security of Pyhalammi's and Corts's systems to prevent unauthorized sender to utilize their systems.

25. As per claims 20 and 85, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi and Corts did not teach synchronized scheduling.

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Garrity taught wherein said gateway is networked for synchronized scheduling with one or more similar gateways (fig. 2; col. 3, lines 62-65).

26. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Garrity because Garrity's teach of synchronized scheduling would enhance Pyhalammi's and Corts's systems by allowing data to be transmitted to a user in the proper sequence.

27. As per claims 26, 39, and 65, Pyhalammi taught the invention substantially as claimed comprising:

receiving instructions from a content provider relating to broadcast of data content (page 3, paragraph 23);

processing said instructions from the content provider to determine broadcast times for said data content (page 3, paragraphs 24 and 25) to be received by a receiver of a user (page 3, paragraph 25), the broadcast times being determined based upon said instructions from the content provider without any user request for said data content (page 3, paragraphs 26 and 27);

receiving said data content via a network (page 3, paragraph 23, fig. 3);

storing said encoded data content (pages 3-4, paragraph 27).

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28. Pyhalammi did not teach encoding data and a digital radio broadcast receiver. Corts taught a digital radio broadcast receiver ([0021]) and encoding said data content for digital radio broadcast transmission ([0197], [0275], [0285]).

29. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi and Corts because Corts's teaching of data processor for encoding data would allow Pyhalammi's system to utilize In-Band On-Channel (IBOC) technology to broadcast digitized data along with the digital audio to wireless devices.

30. Pyhalammi and Corts did not teach authenticating said content provider. Garrity taught authenticating said content provider (col. 4, lines 46-49).

31. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Garrity because Garrity's teaching would increase the security of Pyhalammi's and Corts's systems to prevent unauthorized sender to utilize their systems.

32. Claims 2, 3, and 67-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Miller, U.S. Patent Application Publication 2003/0055977 (hereinafter Miller).

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33. Miller was cited in the last office action.

34. As per claims 2 and 67, although Corts taught IBOC enabled devices ([0021]), however, Pyhalammi and Corts did not teach profile defining specific data content formats. Miller taught a device profile database holding profile associated with consumer devices, and each of said profile defining one or more specific data content formats for said transmission (page 4, paragraph 36).

35. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Miller because Miller's teaching of device profiles would increase the alertness of their system by providing profiles information regarding data format and modality that are compatible with the device of the profile.

36. As per claims 3 and 68, Pyhalammi, Corts and Miller taught the invention substantially as claimed as in claims 2 and 67 above. Although, Miller taught identifying said one or more specific data content formats associated with one or more specific clients (page 4, paragraph 36), however, Miller did not explicitly teach a request for identifying data content formats. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include a request for identifying data content format associated with the clients because by doing so it would increase the alertness of their system by providing profiles information regarding data format and modality that are compatible with the device of the profile.

37. Claims 4 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Hirayama, U.S. Patent Application Publication 2006/0069718 (hereinafter Hirayama).

38. As per claims 4 and 69, Pyhalammi and Corts taught the invention substantially as claimed as in claims 1 and 66 above. Pyhalammi and Corts did not teach unique ID associated with sender. Hirayama taught a identification (ID) processor for extracting a unique ID associated with sender of said received instructions, assigning a unique ID associated with broadcast transmissions, and storing said unique ID associated with the sender of said instructions and said unique ID associated with broadcast transmissions ([0136], [0146], fig. 12)

39. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts and Hirayama because Hirayama's teaching of unique ID associated with sender would increase the alertness of Pyhalammi's and Corts's systems by allowing the push initiator to be determined according to the identifier embedded in the message.

40. Pyhalammi, Corts, and Hirayama's did not explicitly teach push transmissions. It would have been obvious to one having ordinary skill in the art at the time of the invention was made that broadcasting can includes push transmission, hence the a unique ID associated with

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broadcast will be ID associated with push transmission, in order to allow data to be broadcast to user without user request.

41. Claims 9 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Kadyk et al, U.S. Patent 7,046,691 (hereinafter Kadyk).

42. Kadyk was cited in the last office action.

43. As per claims 9 and 74, Pyhalammi and Corts taught the invention substantially as claimed in claims 8 and 73 above. Pyhalammi and Corts did not teach active queues and a passive queue. Kadyk taught an active queue storing data content currently being transmitted (250, fig. 2; col. 9, line 50-col. 10, line 3) and a passive queue storing pushed and pulled data content (230, fig. 2; col. 8, lines 38-45).

44. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Kadyk because Kadyk teaching of active queue and passive queue would increase the flexibility of Pyhalammi's and Corts's system by allowing the system to read the message from the queue when the system is ready to process a new message (col. 8, lines 40-45).

45. Claims 10, 17, 24, 75, 82, and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Official Notice.

46. As per claims 10 and 75, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi and Corts did not teach a cache. “Official Notice” is taken for the concept of a cache for holding data content to be broadcast is known and accepted in the art. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include a cache because by doing so it would increase the efficiency of their system by allowing frequently requested data to be stored and quickly accessed.

47. As per claims 17 and 82, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi and Corts did not teach different protocols. “Official Notice” is taken for the concept of point-to-point protocol (PPP), hypertext transfer protocol (HTTP), or wireless access protocol, are well known in the art. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include different protocol such as HTTP because by doing so it would increase the functionality of their system by allowing browsers to requests webpage from web server on the Internet.

48. As per claims 24 and 88, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi and Corts did not teach a network database identifying other databases. “Official Notice” is taken for the concept of network database such as Domain Name System (DNS) server identifying other databases is known and accepted in the art. It would have been obvious to one having ordinary skill in the art at the time of the

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invention was made to include network database such as Domain Name System (DNS) server because by doing so it would increase the alertness of their systems by providing Internet Protocol address in response to domain name query.

49. Claims 11 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Marlow, U.S. Patent Application Publication 2003/0046670 (hereinafter Marlow).

50. Marlow was cited in the last office action.

51. As per claims 11 and 76, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi and Corts did not teach precompiled binary data. Marlow taught precompiled binary data for transmission (page 3, paragraph 36).

52. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Marlow because Marlow's teaching of precompiled binary data for transmission would increase the user flexibility of Pyhalammi's and Corts's systems by data to be transformed to values appropriate for viewing by the user at a remote location (page 3, paragraph 36).

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53. Claims 12 and 77 rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Ellis et al, U.S. Patent Application Publication 2004/0194131 (hereinafter Ellis).

54. Ellis was cited in the last office action.

55. As per claims 12 and 77, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Although Pyhalammi taught processes information for broadcasting encoded data content (page 2, paragraph 21; page 3, paragraph 25), however, Pyhalammi and Corts did not teach zone information. Ellis taught processes information defining various time zones for broadcasting said encoded data content (page 10, paragraphs 139 and 140).

56. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Ellis because Ellis teaching of defining zone information would increase the flexibility of Pyhalammi's and Corts's systems by allowing data content to be presented to a user based on a defined schedule.

57. Claims 19 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi and Corts in view of Thompson et al, U.S. Patent 6,907,247 (hereinafter Thompson).

58. Thompson was cited in the last office action.

59. As per claims 19 and 84, Pyhalammi and Corts taught the invention substantially as claimed in claims 1 and 66 above. Pyhalammi and Corts did not teach a timer for tracking timeout. Thompson taught a timer for tracking a predefined timeout for which transmission of data content occurs (col. 4, lines 3-19).

60. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, and Thompson because Thompson's teaching of a timer for tracking timeout would increase the efficiency of Pyhalammi's and Corts's systems by allowing resources to be released by a user when a timeout period has expired, hence the released resources can be allocated to other users.

61. Claims 6-7 and 71-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi, Corts, and Hirayama in view of Lin et al, U.S. Patent Application Publication 2002/0146016 (hereinafter Lin).

62. Lin was cited in the last office action.

63. As per claims 6 and 71, Pyhalammi, Corts, and Hirayama taught the invention substantially as claimed as in claims 4 and 69 above. Although Pyhalammi taught said broadcast outbound queue transmitting data content to an external broadcasting network (pages 3-4, paragraph 27), however, Pyhalammi did not teach transmitting data content to said sender of said

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instructions. Lin taught network outbound queue transmitting data content to said sender of said received instructions (140, fig. 6; page 4, paragraph 53).

64. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, Hirayama, and Lin because Lin's teaching of queue for transmitting data content to said sender would increase the reliability of their system by allowing packet to be queue in order to retransmit lost packets (page 4, paragraph 53).

65. As per claims 7 and 72, Pyhalammi, Corts, Hirayama and Lin taught the invention substantially as claimed as in claims 6 and 71 above. Corts further taught an in-band on-channel (IBOC) digital radio broadcast transmission (page 13, paragraph 304).

66. As per claims 27-36 and 40, they fail to define the above and beyond claims (already rejected claims 2, 3, 10 12-14, 18, 23 and 25).

67. Claim 70 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pyhalammi, Corts, and Hirayama in view of Garrity.

68. As per claim 70, Pyhalammi, Corts, and Hirayama taught the invention substantially as claimed in claim 69 above. Pyhalammi, Corts, and Hirayama did not teach an authenticator.

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Garrity taught an authenticator for authenticating a sender of said instructions (col. 4, lines 46-49).

69. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pyhalammi, Corts, Hirayama, and Garrity because Garrity's teaching would increase the security of Pyhalammi's, Corts's, and Hirayama's systems to prevent unauthorized sender to utilize their systems.

70. Applicant's arguments with respect to claims 1-14, 16-36, 39-40, 65-79 and 81-89, filed 08/26/08 have been considered but they are not persuasive.

71. In the remarks, applicant argued that:

(1) Pyhalammi fails to teach said scheduler determines said broadcast times and schedule based upon instructions from the content provider without any user request for said data content.

(2) Pyhalammi fails to teach receipt of instructions from a content provider.

72. In response to point (1), Pyhalammi teaches a Message Buffering and Scheduling Engine that determine broadcast times and schedule based on the delivery class in message 50 from provider without the Message Buffering and Scheduling Engine receiving any request for content (page 3, paragraphs 26 and 27).

73. In response to point (2), Pyhalammi teaches the MCD receives the message (i.e., instructions) created by the provider (page 3, paragraph 23).

74. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip C Lee whose telephone number is (571)272-3967. The examiner can normally be reached on 8 AM TO 5:30 PM Monday to Thursday and every other Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more

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information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Philip C Lee/

Primary Examiner, Art Unit 2452